UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,253	06/26/2000	HIROO IKEGAMI	P107153-0000	5157

23353   7590   02/04/2003

RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER
MADSEN, ROBERT A

ART UNIT	PAPER NUMBER
1761	15

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)
	09/581,253	IKEGAMI ET AL.
	Examiner	Art Unit
	Robert Madsen	1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _21 November 2002_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,2,5-10 and 12-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1,2,5-10,12-16_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 21,2002 has been entered. Claim 16 has been added. Claims 1,2,5-10,12-16 are pending.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1,2,5-10,12-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

   (1) The external rising wall first and second inclined portions in claims 1,10 and 16 comprises a first and second inclined portions wherein the second extends has a larger slope than the first. The locations of the first portion and second portion relative to either the outer peripheral portion or the annular ground portion are not recited in the claim. Being that there is no support in the specification for the inclined portion closest to the annular ground portion to have the greater

slope, the examiner understands the first inclined portion to be the portion *closest* to the annular ground portion. In the drawings in the specification, the first portion immediately extending from the annular ground portion has a larger slope, or is closer in slope to a vertical line, than the second inclined portion.

(2) Claim 16 recites the external rising wall comprises a first and a second inclined portion, each with different slopes, in lines 6-10, but in lines 19-20 of claim 16 recites the external rising wall has an angle of inclination in a range of 5° to 30°. It is unclear to which portion this is referring. For examination purposes the external rising wall has an angle of inclination will considered to be the slope from the annular ground portion.

4.   Claims 12,13, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.   With respect to claim 12, there is insufficient antecedent basis for the limitation "groove diameter" in line 2, but examiner understands this to mean an annular ground portion.

6.   With respect to claims 13 and 16, the internal rising wall is defined as rising towards" the longitudinal centerline of the can" in claims 10 and 16, but claims 13 and 16 recite the angle of inclination is 65 to 110°. In light of the figure 2, if the value of the angle β exceeds 90°, then the internal rising wall would not rise towards " the longitudinal centerline of the can". For examination purposes, angles of 65° up to 90°

will be considered as meeting the limitation of the internal rising wall rising towards" the

longitudinal centerline of the can".

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1,6-10,12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Leftault, Jr. et al. (US 4967538) in view of Lyu (US 3905507), and MacPherson

(US 4402419).

9.   Regarding claims 1,8-10, and 14, Leftault et al. teach a low positive pressure

container, including aluminum or steel seamless cans, holding a low positive pressure

canned food (Column 1, lines 19-65, Column 3, lines 1-25,Column 4, lines 12-23). The

pressure may range from 1 to 50 psig (i.e. 0.07 to 3.5 kgf/sqcm), which includes 0.2 to

0.8 kgf/sqcm, and the bottom wall extends 0-1 in (i.e. 0 to 25.4 mm) into the can,

including 0.5 to 6 mm (Column 6, lines 10-15). The annular ground portion (i.e. item 28)

connects to the outer peripheral portion via an extending rising wall comprising two

inclines, a fist incline (connected to the annular ground portion) has a greater slope

(i.e. is closer to being a vertical line) than the second incline (See Figure3).

Furthermore, the can has an internal rising wall (formed by item 26) connected to a

concave bead (item 30)extending into the can that has a gradually inclined portion

continuous to the bottom wall , as recited in claim 14 (Figure 3, Column 5, line 49 to

Figure 6 line 21). Leftault et al. teach the bottom of the can is pressed inwardly to attain

the desired final pressure of the can (Column 6, lines 44-50). Pressing the bottom

inwardly shortens the internal rising wall, decreases the distance of the bead relative to

the bottom, and decreases the diameter of the bead, which increases the angle of

incline for the internal rising wall increases (Column 5, lines 59-68, Figures 1-3, Column

6, lines 10-20). Leftault et al. teach the can has an inspection aptitude, as recited in

claims 1 and 10, since the pressure attained in the can may be sensed by measuring

the displacement of the outer peripheral (e.g. by a bulge in the side), as recited in claim

8, as the can reacts to the change in internal pressure, as recited in claim 9, resulting

from pushing the bottom into the can (Column 7, lines 3-35). Leftault et al. are silent in

teaching the relative diameter of the annular ground portion is 70-90% the diameter of

the can and the height of the concave bead relative to the flat bottom is 0.1-4 mm, as

recited in claims 1 and 10.

10.   Lyu , like Leftault et al. teach an aluminum or steel can with a bottom resistant to

deformation. Lyu is relied on as evidence of the conventional dimensions that effect the

rigidity of the cans: an annular ground portion diameter, the height of a flat bottom, the

height of a concave bead, and the angle of inclination of an internal rising (Abstract,

Column 2, lines 45-68, Column 3, lines 10-64, Column 4, lines 40-54, Column 5, lines 1-

5,Figures 1 and 2).

11.   With respect to the annular ground portion being 70-90% the diameter of the can,

Lyu teaches the annular ground portion diameter is 85-95% of the outside can diameter

to maintain rigidity for a pressurized can (Column 4, lines 21-54). Therefore, it would

have been obvious to select a annular ground portion of between 85-90% of the outer diameter of the can since Lyu, like Leftault et al., teaches this provides a rigid bottom structure for a pressurized aluminum or steel can holding food products , and one would have been substituting one annular ground portion design for another for a pressurized can. To further select any particular between 70 and 85% would have been an obvious result effective variable of other can dimensions since Lyu teaches the annular ground portion diameter in addition to the height of a flat bottom, the height of a concave bead, and the angle of inclination of an internal rising wall all effect the rigidity of the cans.

12. With respect to the particular height of the concave bead, Leftault et al. teach the bottom is 0-25.4 mm depending on the desired final pressure and the concave bead height is affected by the distance the bottom is pressed. Lyu implicitly teaches the height of the bead from the flat bottom is 0-10 times the thickness of the material used (i.e. the height of the flat bottom is 8-15 times the thickness of the material used, and the height of a concave bead is 15-25 times the thickness of the material used). Lyu also teaches the difference in the height between the flat bottom and annular bead is an important factor to make the container more pressure resistant and result in a net zero force on the bottom wall. (Column 3, lines 10-64, Column 4, lines 40-54). MacPherson teaches the conventional thickness of material used for pressurized cans: steel 0.006-0.009 in (i.e. 0.15 mm-0.22 mm) and aluminum 0.010-0.014 in (i.e. 0.25-0.35mm) (Abstract, Column 3, lines 10-20). Thus, Lyu, not only teaches bottom height within the range of Leftault et al., (i.e. 1.2 mm to 3.3 mm for steel and 2.0 to 5.25 mm for aluminum), but teaches the concave bead height from the flat bottom is 0.1 to 3.5 mm,

depending on the material selected (i.e. 0 -3.5 mm for aluminum and 0-2.2mm for steel). Therefore it would have been obvious to select a concave annular bead height of 0.1 to 3.5 mm for aluminum and 0.1 to2.2 mm for steel since Lyu teaches this is a conventional concave bead height for a can with the flat bottom height of Leftault et al., and one would have been substituting one concave bead for another for a pressurized food can made of aluminum or steel and having a similarly contoured bottom. To select any height from 3.5 to 4.0 would have been an obvious result effective variable of the desired final pressure of the can since Leftault et al. teach the bottom can be pressed inwardly by 0-25.4 mm depending on the desired final pressure and the concave bead height is affected by the distance the bottom is pressed.

13.   Regarding claim 6, Leftault et al. teach the can may include a carbonated drink (Column 4, lines 9-12), which would contribute to a positive pressure by gas exchange.

14.   Regarding claim 7, since Leftault et al. teach a rigid flat bottom that is pressure resistant, Leftault et al. do teach a container that has a tap test aptitude.

15.   Regarding claim 12, Leftault et al. teach the diameter of flat bottom portion is smaller than the annular ground diameter (Figures), but is silent in teaching 60-90% of the ground portion. Lyu, who teaches a similar can as Leftault et al., also teaches the annular ground portion diameter is 85-95% of the outside can diameter, the concave bead diameter is 75% to 95% of the annular ground portion diameter, and the flat bottom diameter is 65% to 85% of the concave bead diameter. These relationships prevent deformation of the bottom of the container (Column 4, lines 21-55). Thus Lyu teaches the flat bottom diameter is 60-81% of the ground portion diameter. Therefore it

would have been obvious to select a bottom diameter of at least 60-81% of the ground portion since this a well known bottom diameter for prevent deformation of a bottom in a container similar to Leftault et al. Furthermore, to select a flat bottom diameter to 82-90% of the ground portion diameter would have been an obvious design choice given that Leftault et al. provides a result effective variable of the desired pressure of the container since Leftault et al. shows in the drawings a greater/steeper slope for both the internal inclined portion and the concave bead to bottom gradual incline portion, than Lyu, which would create a larger flat bottom diameter.

16.   Regarding claim 13, Leftault et al. teach an internal rising wall connected to the annular ground portion. As the flat bottom is pushed in, the concave bead diameter and the length of the incline between the annular concave bead and bottom become smaller (i.e. the slope of the internal rising wall becomes greater), but the slope from the annular concave bead to the flat bottom, the diameter of the flat bottom remaining, and the width of the annular ground portion remain fixed (Column 4, lines 24-61, Column 5 line 49 to Column 6, line 10, Figures 2 and 3). Therefore, Leftault et al. teach that the internal rising wall approaches 90° as the bottom is pressed inward. However Leftault et al. are silent in teaching 65° and 90°. Lyu is relied on as evidence of the conventionality of having an angle of inclination of the internal wall connecting the annular portion to the annular concave bead of an initial slope of 75-90° and a final of 55-70°(i.e. Lyu defines this angle relative to the vertical axis as 0-15° and 20-35° in Column 4, lines 21-54). Lyu teaches this angle affects the rigidity of the bottom wall and is especially important for thinner materials (Column 4, lines 14-20). Therefore, it would have been obvious to

modify Leftault et al. and use an angle between 65° and 90° since Leftault et al. teach the angle approaches 90° as the bottom is pushed in and these angles improve the rigidity of the bottom wall.

17.   Regarding claim 15, Leftault et al. teach a pressurized food container of steel or aluminum, and the conventional thickness of steel and aluminum materials used for pressurized cans is 0.15-0.22 mm and 0.25-0.35mm, respectively. Therefore, it would have been obvious to select these particular thickness values since these are conventional for aluminum and steel pressurized cans.

18.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leftault, Jr. et al. (US 4967538) in view of Lyu (US 3905507), and MacPherson (US 4402419) as applied to claims 1,6-10,12-15 above, further in view of Yamaguchi (US 443112).

19.   Leftault et al. are silent in teaching the internal pressure is maintained with an accuracy of +/-0.2 kgf/sqcm. However, Yamaguchi, who teaches conventionality of a pressurized aluminum or steel can having a flat bottom positioned lower than an annular bead like Leftault (Abstract, Examples), also teaches these types of cans are given a safety range of 0.2-0.5 kgf/sqcm (Example 5). Therefore, it would have been obvious to maintain an accuracy of +/- 0.2kgf/sqcm, since this is the conventional safety range for aluminum or steel cans with the recited bottom structure.

20.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leftault, Jr. et al. (US 4967538) in view of Lyu (US 3905507), and MacPherson (US 4402419)

as applied to claims 1,6-10,12-15 above, further in view of Yamamoto et al. (JP 01252274).

21.   Regarding claim 5, Leftault et al. teach either a carbonated or non-carbonated drink (Column 4, lines 9-12) and retorting sterilization after filling and sealing (Column 5, lines 20-48) but is silent in teaching a low acid drink per se. Yamamoto et al. are relied on as evidence of the conventionality of an aluminum or steel cans comprising an internal pressure of 0.6-1.8 kgf/sqcm , resistant to deformation, that undergo retorting after filling and sealing for *low acid* drinks (Abstract). Therefore, it would have been obvious to include low acid drinks in the can of Leftault et al. since one would have been substituting one conventional drink for another in aluminum or steel cans comprising an internal pressure of 0.6-1.8 kgf/sqcm , resistant to deformation, that undergo retorting after filling and sealing.

22.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leftault, Jr. et al. (US 4967538) in view of Lyu (US 3905507), MacPherson (US 4402419), and Cerny et al. (US 4381061).

23.   Leftault et al. teach a low positive pressure container, including aluminum or steel seamless cans, holding a low positive pressure canned food (Column 1, lines 19-65, Column 3, lines 1-25,Column 4, lines 12-23). The pressure may range from 1 to 50 psig (i.e. 0.07 to 3.5 kgf/sqcm), which includes 0.2 to 0.8 kgf/sqcm, and the bottom wall extends 0-1 in (i.e. 0 to 25.4 mm) into the can, including 0.1 to 10 mm (Column 6, lines 10-15). The annular ground portion (i.e. item 28) connects to the outer peripheral

portion via an extending rising wall comprising two inclines, a fist incline (connected to the annular ground portion) has a greater slope (i.e. is closer to being a vertical line) than the second incline (See Figure3). Furthermore, the can has an internal rising wall (formed by item 26) connected to a concave bead (item 30) extending into the can (Figure 3, Column 5, line 49 to Figure 6 line 21). Leftault et al. teach the bottom of the can is pressed inwardly to attain the desired final pressure of the can (Column 6, lines 44-50). Pressing the bottom inwardly shortens the internal rising wall, decreases the distance of the bead relative to the bottom, and decreases the diameter of the bead, which increases the angle of incline for the internal rising wall increases (Column 5, lines 59-68, Figures 1-3, Column 6, lines 10-20). Leftault et al. teach the can has an inspection aptitude, since the pressure attained in the can may be sensed by measuring the displacement of the outer peripheral (e.g. by a bulge in the side) as the can reacts to the change in internal pressure resulting from pushing the bottom into the can (Column 7, lines 3-35). Leftault et al. are silent in teaching the relative diameter of the annular ground portion is 70-98% the diameter of the can, the relative diameter of the bottom wall is 60-90% of the annular ground portion, the height of the concave bead relative to the flat bottom is 0.1-5 mm, the internal rising wall angle is 65° to up to 90°, and the external rising wall angle of 5 to 30°.

24. Lyu, like Leftault et al. teach an aluminum or steel can with a bottom resistant to deformation. Lyu is relied on as evidence of the conventional dimensions selected, including an annular ground portion diameter, the height of a flat bottom, the height of a concave bead, and the angle of inclination of an internal rising wall together effect the

rigidity of the cans ((Abstract, Column 2, lines 45-68, Column 3, lines 10-64, Column 4, lines 40-54, Column 5, lines 1-5,Figures 1 and 2).

25. With respect to the annular ground portion being 70-98% the diameter of the can, Lyu teaches the annular ground portion diameter is 85-95% of the outside can diameter to maintain rigidity for a pressurized can (Column 4, lines 21-54) Therefore, it would have been obvious to select a annular ground portion of between 85-95% of the outer diameter of the can since Lyu, like Leftault et al., teaches this provides a rigid bottom structure for a pressurized aluminum or steel can holding food products, and one would have been substituting one annular ground portion design for another for a pressurized can. To further select between 70 and 85% would have been an obvious result effective variable of other can dimensions since Lyu teaches the annular ground portion diameter in addition to the height of a flat bottom, the height of a concave bead, and the angle of inclination of an internal rising wall all effect the rigidity of the cans.

26. With respect to the relative diameter of the bottom wall being 60-90% of the annular ground portion, Lyu teaches the annular ground portion diameter is 85-95% of the outside can diameter, the concave bead diameter is 75% to 95% of the annular ground portion diameter, and the flat bottom diameter is 65% to 85% of the concave bead diameter (Column 4, lines 41-54). That is, Lyu teach the bottom wall diameter is 49% to 81% of the annular ground portion diameter. Therefore, it would have been obvious to modify Leftault et al. such that the bottom wall diameter is 60 to 81% of the diameter of the annular ground portion since Lyu teaches this diameter ratio will assure a pressure resistant bottom for the same type of container as Leftault et al. To select

82% to 90% would have been an obvious result effective variable of other can dimensions since Lyu teaches the annular ground portion diameter in addition to the height of a flat bottom, the height of a concave bead, and the angle of inclination of an internal rising wall all effect the rigidity of the cans.

27. With respect to the concave bead having a height of 0.1-5 mm relative to the flat bottom, Leftault et al. teach the bottom is 0-25.4 mm depending on the desired final pressure and the concave bead height is affected by the distance the bottom is pressed. Lyu implicitly teaches the height of the bead from the flat bottom is 0-10 times the thickness of the material used (i.e. the height of the flat bottom is 8-15 times the thickness of the material used, and the height of a concave bead is 15-25 times the thickness of the material used). Lyu also teaches the difference in the height between the flat bottom and annular bead is an important factor to make the container more pressure resistant and result in a net zero force on the bottom wall. (Column 3, lines 10-64, Column 4, lines 40-54). MacPherson teaches the conventional thickness of material used for pressurized cans: steel 0.006-0.009 in (i.e. 0.15 mm-0.22 mm) and aluminum 0.010-0.014 in (i.e. 0.25-0.35mm) (Abstract, Column 3, lines 10-20). Thus, Lyu, not only teaches bottom height within the range of Leftault et al., (i.e. 1.2 mm to 3.3 mm for steel and 2.0 to 5.25 mm for aluminum), but teaches the concave bead height from the flat bottom is 0.1 to 3.5 mm, depending on the material selected (i.e. 0 -3.5 mm for aluminum and 0-2.2mm for steel). Therefore it would have been obvious to select a concave annular bead height of 0.1 to 3.5 mm for aluminum and 0.1 to2.2 mm for steel since Lyu teaches this is a conventional concave bead height for a can with the flat

bottom height of Leftault et al., and one would have been substituting one concave bead for another for a pressurized food can made of aluminum or steel and having a similarly contoured bottom. To select any height from 3.5 to 5 mm would have been an obvious result effective variable of the desired final pressure of the can since Leftault et al. teach the bottom can be pressed inwardly by 0-25.4 mm depending on the desired final pressure and the concave bead height is affected by the distance the bottom is pressed.

28.   With respect to having an internal rising wall angle of 65 to 90°, Leftault et al. teach an internal rising wall connected to the annular ground portion. As the flat bottom is pushed in, the concave bead diameter and the length of the incline between the annular concave bead and bottom become smaller (i.e. the slope of the internal rising wall becomes greater), but the slope from the annular concave bead to the flat bottom, the diameter of the flat bottom remaining, and the width of the annular ground portion remain fixed (Column 4, lines 24-61, Column 5 line 49 to Column 6, line 10, Figures 2 and 3). Therefore, Leftault et al. teach that as the internal rising wall approaches 90° as the bottom is pressed inward. However Leftault et al. are silent in teaching 65° and 90°. Lyu is relied on as evidence of the conventionality of having an angle of inclination of the internal wall connecting the annular portion to the annular concave bead of an initial slope of 75-90° and a final of 55-70°(i.e. Lyu defines this angle relative to the vertical axis as 0-15° and 20-35° in Column 4, lines 21-54). Lyu teaches this angle affects the rigidity of the bottom wall and is especially important for thinner materials (Column 4, lines 14-20). Therefore, it would have been obvious to modify Leftault et al.

and use an angle between 65° and 90° since Leftault et al. teach the angle approaches 90° as the bottom is pushed in and these angles improve the rigidity of the bottom wall.

29.   With respect to having an angle of 5-30° for the external rising wall, Leftault et al. clearly teach an angle between 0° and 90° that changes as the bottom is pressed forward.   Cerny et al. are relied on as evidence of the conventionality of providing food containers with an external rising wall angle from 5° to 30° (Abstract, Figures, Column 4, lines 23-39), to provide wall strength. Therefore, it would have been obvious to modify to select an angle between 5° to 30° since this is a known range for external rising wall angles for containers resistant to pressure.

Response to Arguments

30.   Applicant's arguments filed November 21, 2002 have been fully considered but they are not persuasive.

31.   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the feature upon which applicant relies (i.e., a can wall thickness of 0.18 mm) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification (e.g. the can wall thickness) are not read into the claims (See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)). Furthermore, Leftault teach the claimed general structure, which may be made from aluminum or steel, but fails to teach the specific dimension. Lyu utilizes formulas, based on the material thickness, to arrive at the same general structure as Leftault et al., for the same purpose as Leftault et al.

(pressure resistant food container), and with the same materials (aluminum or steel).

Utilizing the conventional thickness of an aluminum or steel food container, as taught by

MacPherson, in the formulas taught by Lyu, one obtains the claimed invention.
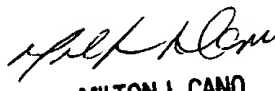
Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert Madsen whose telephone number is (703)305-

0068. The examiner can normally be reached on 7:00AM-3:30PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Milton Cano can be reached on (703)308-3959. The fax phone numbers

for the organization where this application or proceeding is assigned are (703)872-9310

for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

0061.

Robert Madsen
Examiner
Art Unit 1761
January 24, 2003

MILTON I. CANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700